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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,861	03/26/2004	Yi-Hua Lu	98730-000034/US	2592

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER	
HYEON, HAE M	

ART UNIT	PAPER NUMBER
2839	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/809,861	LU, YI-HUA
	Examiner	Art Unit
	Hae M. Hyeon	2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on September 28, 2005. These drawings are approved.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard et al (US 6,522,299 B2) in view of Bauer et al (US Patent Application Publication No. 2003/0174099 A1).

Beard discloses a wireless interconnect device 10 comprising a wireless communication card 12 having a main body, an antenna14 connected to the main body by a signal line 16, and a connector 18 connecting to a PCI-slot connector of a computer. However, the wireless interconnect device 10 of Beard only includes one antenna 14.

Bauer discloses a wireless system 101 comprising a main body 113, a connector 102, a first antenna 200a connected to the main body 113 by a first signal line 203a, and a second antenna 200b connected to the main body 113 by a second signal line 203b (see Prior art Figure 1). Bauer teaches that the use of multiple antennas improves the spatial coverage.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the wireless device taught by Beard such that it would have

two antennas as taught by Bauer because the use of multiple antennas improves the spatial coverage.

Regarding to the communication card 12 of Beard, Beard teaches that the card 12 is a wireless network card (see, column 1, line 31). Since the Ethernet card of the claimed invention is a type of network cards, Beard's communication card 12 can be the Ethernet card.

Regarding to mini PCI or mini USB connector, which are well known in the art of an electrical connector, it only deals with the use of different type of connectors without changing or affecting the function of the wireless device.

Regarding to placing the antennas on a top of an outer lid or a front side of a casing of the computer, it only deals with a rearrangement of parts. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. The antennas can be placed on any place where they can receive a better signal.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US 6,531,985 B1) in view of Teshima (US Patent Application Publication No. 2002/0080565 A1).

Jones discloses a wireless interconnect device 30 having two antennae 20 for a computer 10 having a casing 13, an outer lid, a main board 14, and a mini PCI-slot, comprising first and second antennae 20, a wireless card 30 having a main body 40, an electric connecting part 35, first and second signal lines 25, wherein the electric connecting part 35 electrically connecting the main body 40 to the mini PCI-slot 15 of the computer 10 and the first and second signal lines 25 respectively electrically connecting the first and the second antenna 20 to the main body 40. Figures 2A-2B show the casing 13 having accommodating spaces for the antennae 20. However,

the antennae 20 are not placed on a top of the outer lid of the computer and a front side of the casing. Instead, the antennae 20 are placed on two opposite sides of the casing 13.

Teshima discloses a computer including a wireless card connected to an antenna 20 placed on a monitor 14 having an accommodating space 22 with a cover 36 for protecting the antenna 20. Teshima teaches that placing the antenna 20 on the monitor 14 provide reliable wireless data communications with constant stability without being affected by use locations, use states, and environments. Additionally, a large space is not required in the display housing for mounting the antenna, which provides for a reduced size and therefore a higher package density.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the antenna accommodating space taught by Jones such that it would have the antenna accommodating space in a monitor as taught by Teshima because placing the antenna on the monitor provide reliable wireless data communications with constant stability without being affected by use locations, use states, and environments. Furthermore, placing the antennas on a top of an outer lid, a front side of a casing of the computer or any other place, it only deals with a rearrangement of parts. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. The antennas can be placed on any place where they can receive a better signal.

Regarding to mini PCI or mini USB connector, which are well known in the art of an electrical connector, it only deals with the use of different type of connectors without changing or affecting the function of the wireless device.

Regarding to a plurality of fixing holes and positioning elements recited in claims 4 and 8, they are well known and many different types are known such as a screw, post, pin, peg or rivet.

Response to Arguments

5. Applicant's arguments filed on September 28, 2005 have been fully considered but they are not persuasive.

The applicant argues that the reference by Beard et al (US 6,522,299 B2) discloses a wireless interconnect device including only one antenna and the reference by Bauer et al (US patent Application Publication No. 2003/0174099 A1) discloses the use of multiple antennas in Radio frequency identification (RFID) systems. Therefore, there is no motivation or suggestion for one of ordinary skill in the art to combine Beard et al and Bauer et al. Furthermore, the applicant argues that both reference do not discloses the first antenna located at a front side of the casing of a computer, and the second antenna located at top of the outer lid of the computer.

The examiner agrees that Beard teaches a wireless interconnect device including only one antenna and Bauer teaches RFID systems including multiple antennas. Also, the examiner agrees that Beard and Bauer teach different devices. However, the examiner disagrees with the applicant that there is no motivation or suggestion for one of ordinary skill in the art to combine Beard and Bauer. Although Beard and Bauer disclosed different devices, both devices uses antenna for receiving an electrical signal. Also, Bauer teaches the use of multiple antennas for improving the spatial coverage of the electrical signal of the device. Therefore, Bauer solves the same problem as taught by the instant invention. Furthermore, it is common knowledge to move around or to spread the antennas to find the spatial coverage of the electrical signal for the device. Also, the examiner clearly stated in the previous office action that the placement of the antennas only deals with a rearrangement of parts because the antennas are placed on any place where they can receive a better signal. Thus, the examiner believes that the rejection applied in

the previous office action is appropriate. Lastly, the examiner has discovered new references that read on the claims, so new rejection is added in this office action.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,574,115 B2 by Asano et al. and US Patent No. 6,786,409 B2 by Fujii et al. show a wireless communication card having two antennae.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon
Primary Examiner
Art Unit 2839

hmh hmh

Hae Moon Hyeon